Guidance document for processing PM-JAY packages

Cardiopulmonary emergency

Procedures covered: 2 **Specialty: Emergency Room Packages**

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Cardiopulmonary emergency	Emergency with stable cardiopulmonary status	M700001	ER002A	2,000
Cardiopulmonary emergency	Emergency with unstable cardiopulmonary status with resuscitation	New Package	ER002B	10,000

ALOS: NA

Minimum qualification of the treating doctor:

Essential: MD/DNB in Emergency Medicine, General medicine, DM in Cardiology.

Special empanelment criteria/linkage to empanelment module: Care at Tertiary Hospital

Disclaimer:

For monitoring and administering the claim management process of **Cardiopulmonary emergency,** NHA shall be following these guidelines. This document has been prepared for guidance of PROCESSING TEAM and TRANSACTION MANAGEMENT SYSTEM of AB PM-JAY for the claims of procedures mentioned above. The hospitals can also refer to this document so that they have the insight on how the claims will be processed. However, this document doesn't provide any guidance on clinical and therapeutic management of patient. In that respect the hospitals and physicians may refer to other relevant material as per the extant professional norms.

PART I: GUIDELINES FOR CLINICIANS AND HEALTHCARE PROVIDERS

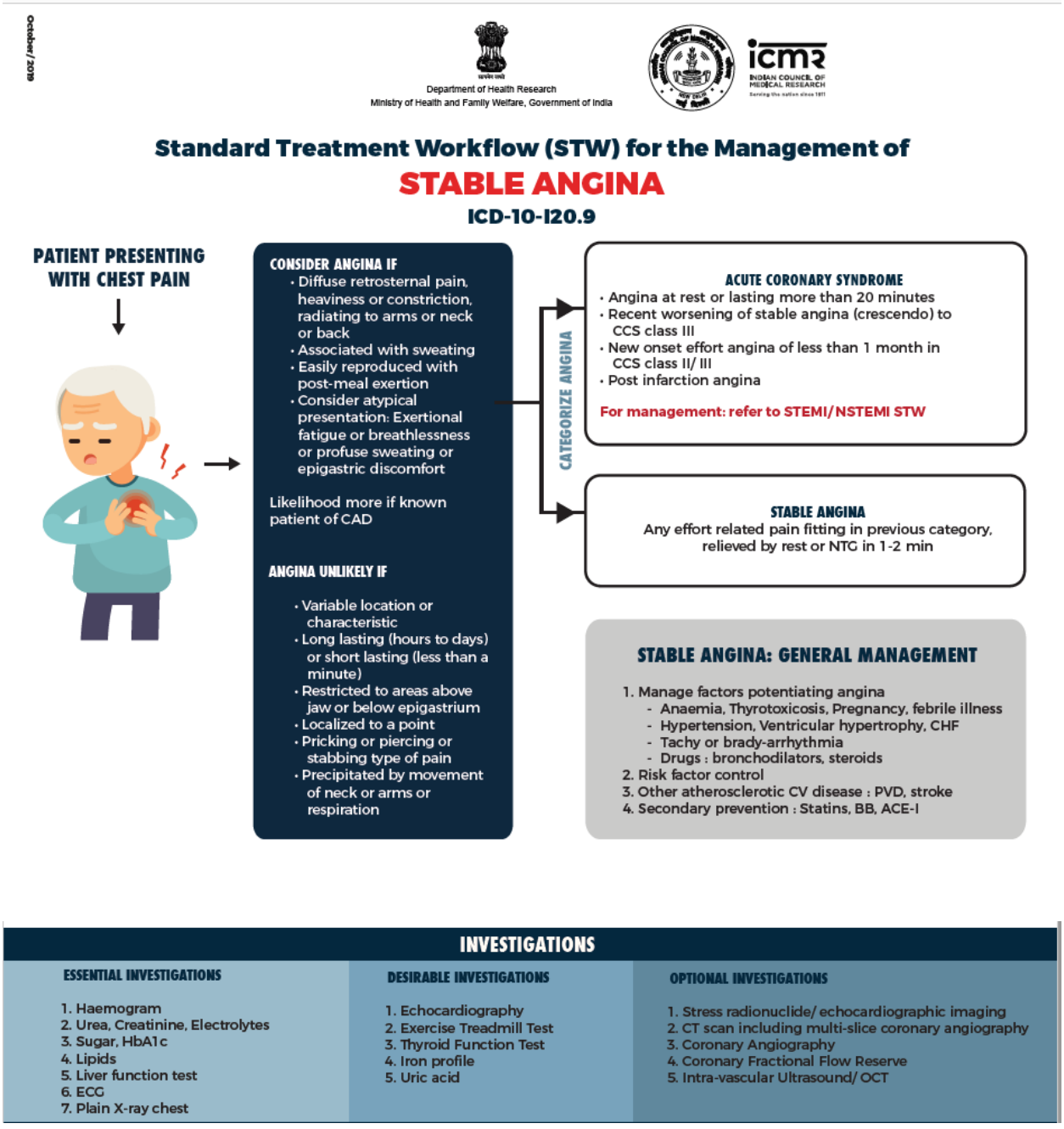
1.1 Objective:

The purpose of this section is to act as a guidance & a clinical decision support tool for the clinicians in deciding the line of treatment, plan clinical management of patient and decide referral of cases to the appropriate level of care (as required) for treatment of patients under PMJAY and selection of corresponding Health Benefit Package.

It will also serve as a tool for hospitals to determine and submit the mandatory documents required for claiming reimbursement of health benefit package under PMJAY.

1.2 Clinical key pointers: Proceed for treatment only if diagnosis made is backed by clinical signs, symptoms, examination.

Emergency with stable cardiopulmonary status: Chronic Stable Angina: Chronic manifestation of coronary artery disease (CAD) described as retrosternal discomfort (heaviness), brought about or increased with exertion and reduced with rest or nitrates lasting less than 10 minutes.



Algorithm for Evaluation and Management of Patients with Chest Discomfort

Emergency with unstable cardiopulmonary status with resuscitation: Unstable Angina (UA): A clinical syndrome subset of Acute coronary syndrome (ACS) defined by ECG ST-segment depression or prominent T wave inversion and no elevation of cardiac biomarkers of necrosis (Troponins T/I or CPKMB).

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Standard Treatment Workflow (STW) for the Management of UNSTABLE ANGINA/ NSTEMI

ICD-10-I20.0

CONSIDER ANGINA IF
- Diffuse retrosternal pain, heaviness or constriction. Radiation to arms or neck or back
- Associated with sweating
- Easily reproduced with post-meal exertion
- Consider atypical presentation: Exertional fatigue or breathlessness or profuse sweating or epigastric discomfort

More likelihood if known patient of CAD/ multiple risk factors

ACUTE CORONARY SYNDROME:
1. Angina at rest or lasting more than 20 minutes
2. Recent worsening of stable angina (crescendo) to CCS class III
3. New onset effort angina of less than 1 month in CCS class II/ III
4. Post infarction angina

ECG:
- If ST Elevation: Follow ST Elevation MI (STEMI) STW
- If no ST Elavation: UA/NSTEMI

RED FLAG SIGNS
- Pain lasting for more than 20 minutes
- Recurrent or ongoing pain or rest pain
- Associated breathlessness, profuse sweating or syncope
- Haemodynamic instability

Refer as emergency to nearest Primary PCI/ Thrombolysis capable centre

Rest pain beyond 24hrs or without above features may be referred early for further evaluation

LOOK FOR OTHER CAUSES OF PROLONGED CHEST PAIN

Dissection of aorta (unequal/ absent peripheral pulses) | Respiratory Evaluation: Pleuritis/ pneumonitis/ embolism/ pneumothorax | Pericardial rub | Neuralgia or herpes

ANGINA UNLIKELY IF:

Variable location or characteristic	Long lasting (hours to days) or short lasting (less than a minute)	Restricted to areas above jaw or below epigatrium	Localized to a point	Pricking or piercing or stabbing type of pain	Precipitated by movement of neck or arms or respiration

MANAGEMENT

PHC/ CHC LEVEL

1. ECG, Troponin.
2. Start
   - -Aspirin, Clopidogrel
   - -Heparin/ LMWH
   - -High dose atorvastatin
   - -Metoprolol
3. Risk stratify GRACE score or TIMI score
   - Refer High/ Intermediate risk to PCI capable centre
   - Refer Low risk for further evaluation to DH
4. Refer to PCI capable centre if:
   - Acute LVF
   - Hypotension
   - Systolic murmur
   - Arrhythmia

DISTRICT HOSPITAL

1. Admit in ICU equipped with ECG monitoring and defibrillator
2. Troponin & bio-chemistry if not done
3. Serial ECG & echocardiography
4. Continue Aspirin, Clopidogrel, Heparin & Metoprolol
5. Add nitrates if needed
6. Management for different risk categories:
   - -Very high,High or Intermediate risk or LVEF <40%: Refer for revascularization
   - -Low risk patients: Conservative management
     Life style modification
     Risk factor control
     Secondary prevention

TERTIARY CENTRE

1. Admit, reassess clinically and monitor in ICCU
2. Continue aspirin and heparin
3. Load with clopidogrel or prasugrel or ticagralor if not already done
4. Optimal medical therapy to continue (BB, high dose atorvastatin, ACE-inhibitors, intra-venous nitrates if ongoing pain, severe MR or LVF)
5. Detailed echocardiography
6. Low risk patients may undergo non-invasive risk stratification with exercise stress test, CT coronary angiography or stress imaging
7. Very high risk, high risk and intermediate risk patients may be subjected to coronary revascularization

Revascularization:
1. Discuss pros & cons of revascularization and prolonged dual anti-platelet therapy
2. Revascularize if anatomy is suitable
3. Prefer CABG over PCI in DM with multi-vessel disease or left main disease

Revascularization strategy:
1. Very High risk: Urgent revascularization (within few hours) after loading preferably with Ticagrelor or prasugrel if PCI is planned
2. High risk patients: Early revascularization (within 24 hours)
3. Intermediate risk patients: Revascularization (within 72 hours)
4. Continue Dual anti-platelets in patients undergoing PCI for atleast 12 months in DES and for 3 months in BMS

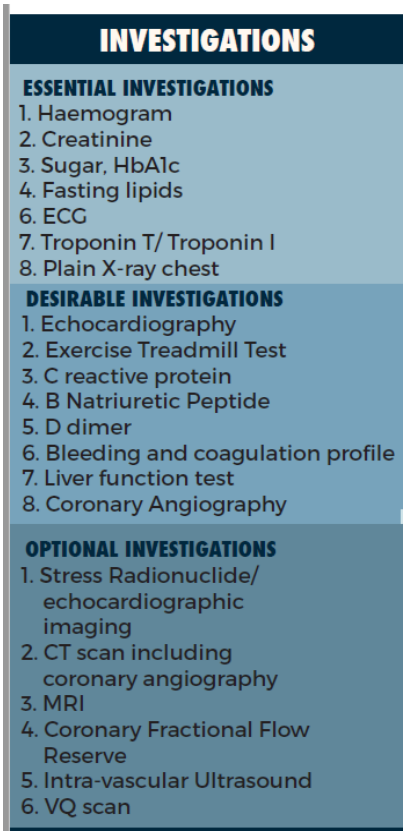
UNSTABLE ANGINA OR NSTEMI DIAGNOSIS

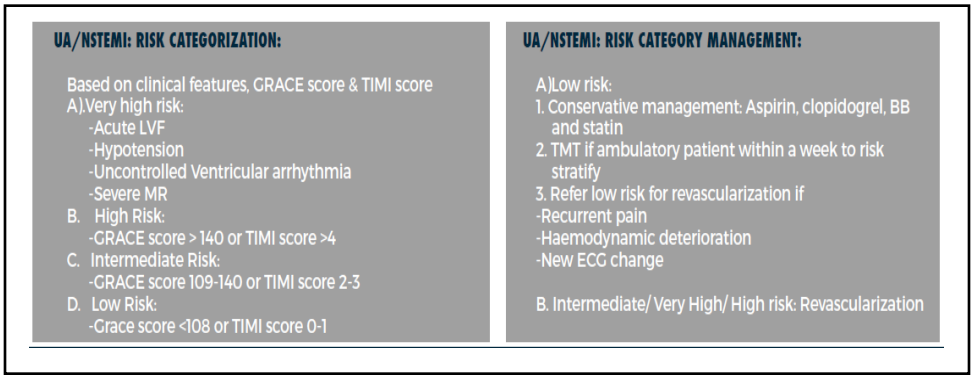
Very high risk clinical instability	High risk GRACE > 140, TIMI ≥4	Intermediate risk GRACE 109-140, TIMI2-3	Low risk GRACE <109, TIMI ≤1
Immediate invasive <2 h	Early invasive 2-24 h	Delayed invasive 25-72 h	Medical/ non-invasive strategy

If at non-PCI-capable hospital
Very high risk: Immediate transfer to PCI-capable hospital
High risk: same-day transfer
Intermediate risk: transfer for PCI within 72 h
Low risk: transfer if pursuing invasive treatment

Clinical instability, rise in cTn, or ECG changes

Invasive evaluation + Non-invasive ischaemic testing





1.3 Mandatory documents- For healthcare providers

Following documents should be uploaded by the concerned hospital staff at the time of pre-authorization and claims submission:

Mandatory document	Cardiopulmonary emergency
i. At the time of Pre-authorization	
a. Clinical Notes including evaluation findings, indications for the procedure, and planned line of treatment	Yes
b. Electrocardiogram (ECG)report	Yes
At the time of claim submission	
a. Detailed Indoor Case Papers (ICPs)	Yes
b. Detailed Discharge summary	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

PART III: GUIDELINES FOR TRANSACTION MANAGEMENT SYSTEM (TMS)

3.1 **Objective:** To enable setting up of cross check mechanisms/rule engines within the IT platform (TMS) to ensure compliance with STGs and to prevent fraud / abuse of the Health Benefit Package.

3.2 **Below mentioned are the scenarios where a provision would be built in TMS for pop-ups**:

a. Was the Clinical notes and ECG report indicative of procedure? Yes

Till the time the functionality is being developed, the processing doctors shall check the above manually.

References:

1. Standard Treatment Workflow (STW), MOHFW, ICMR: https://stw.icmr.org.in/index.php/stws
2. Clinical Management Guidelines for Coronary Artery Disease for National Programme for Prevention and Control of Diabetes, Cardiovascular Disease and Stroke: http://origin.searo.who.int/india/topics/cardiovascular_diseases/NCD_Resources_CLINICAL_MANAGEMENT_GUIDELINES_FOR_CAD.pdf
3. Mathur, Roli. "ICMR Consensus Guidelines on 'Do Not Attempt Resuscitation'." Indian Journal of Medical Research 151.4 (2020): 303.